CATERPILLAR

Service Manual

336 EXCAVATOR

Printed by Heavy Equipment Manuals **Printed in U.S.A**
v2.20

Heavy Equipment Manuals

Disassembly and Assembly 2
Schematic 1422
Specifications 1516
Systems Operation 1986
Testing and Adjusting 2971
Torque Specifications 3931
Troubleshooting 3982

M0087649-06 336, 336 GC and 340 Excavator Machine Systems 2
M0088269-03 336 Excavators (Powered by C9.3 Tier 4 Engine) Engine Supplement 813
M0095651-01 C9.3B Engines for Caterpillar Built Machines 1043
UENR3262-00 Seal Installation 1324
UENR4125-10 Air Conditioning and Heating R134a for All Cat Machines 1387

Accumulator - Remove and Install 5
Antenna (GPS) - Remove and Install 8
Boom - Remove and Install 10
Boom Bearings and Seals - Remove and Install 17
Boom Cylinder - Assemble 21
Boom Cylinder - Disassemble 32
Boom Cylinder - Remove and Install 43
Bucket - Remove and Install 48
Bucket Cylinder - Assemble 54
Bucket Cylinder - Disassemble 61
Bucket Cylinder - Remove and Install 67
Bucket Linkage - Remove and Install 72
Bucket Linkage Bearings and Seals - Remove and Install 79
Cab - Remove and Install 86
Camera - Remove and Install - Front Camera 100
Camera - Remove and Install - Left Camera 103
Camera - Remove and Install - Rear Camera 107
Camera - Remove and Install - Right Camera 112
Counterweight - Remove and Install 115
Duo-Cone Conventional Seals - Install 119
Fan Drive Motor - Remove and Install 131
Final Drive - Assemble 133
Final Drive - Disassemble 145
Final Drive - Remove and Install 153
Front Idler, Recoil Spring and Hydraulic Track Adjuster - Remove and Install 156
Fuel Tank - Remove and Install 161
Gear Pump (Charge) - Assemble 173
Gear Pump (Charge) - Disassemble 180
Gear Pump (Charge) - Remove and Install 187

Heating and Air Conditioning Unit - Assemble 193
Heating and Air Conditioning Unit - Disassemble 200
Heating and Air Conditioning Unit - Remove and Install 207
Hydraulic Lockout Control - Remove and Install 216
Hydraulic Tank - Remove and Install 222
Hydraulic Track Adjusters - Assemble 234
Hydraulic Track Adjusters - Disassemble (2) 236
Hydraulic Track Adjusters - Disassemble 238
Joystick Control and Mounting - Remove and Install - Left Side 240
Joystick Control and Mounting - Remove and Install - Right Side 246
Main Control Valve - Assemble 251
Main Control Valve - Disassemble 305
Main Control Valve - Remove and Install (2) 359
Main Control Valve - Remove and Install 370
Main Hydraulic Pump - Assemble 371
Main Hydraulic Pump - Disassemble 411
Main Hydraulic Pump - Remove and Install 448
Operator Monitor - Remove and Install - GPS 454
Operator Monitor - Remove and Install 457
Pedal Control (Travel) - Remove and Install 461
Piston Motor (Hydraulic Fan) - Assemble 465
Piston Motor (Hydraulic Fan) - Disassemble 479
Piston Pump (Hydraulic Fan) - Assemble 488
Piston Pump (Hydraulic Fan) - Disassemble 504
Piston Pump (Hydraulic Fan) - Remove and Install 517
Position Sensor (Internal Measurement Unit) - Remove and Install 520
Position Sensor (Swing) - Remove and Install 524
Position Sensor and Mounting (Bucket) - Remove and Install 526
Pump Drive Coupling - Remove and Install 531
Quick Coupler - Remove and Install 534

Recoil Spring - Assemble 537
Recoil Spring - Disassemble 545
Refrigerant Condenser - Remove and Install 552
Refrigerant Receiver-Dryer - Remove and Install 555
Satellite Receiver - Remove and Install 558
Seat - Remove and Install 561
Sprocket - Remove and Install 567
Stick - Remove and Install 571
Stick Bearings and Seals - Remove and Install 577
Stick Cylinder - Assemble 584
Stick Cylinder - Disassemble 593
Stick Cylinder - Remove and Install 601
Swing Drive - Assemble 605
Swing Drive - Disassemble 613
Swing Drive - Remove and Install 621
Swing Gear and Bearing - Install 625
Swing Gear and Bearing - Remove 630
Swing Motor - Assemble 633
Swing Motor - Disassemble 651
Swing Motor - Remove and Install 671
Swivel - Assemble 675
Swivel - Disassemble 680
Swivel - Remove and Install 685
System Pressure - Release 694
Track - Connect 701
Track - Separate 708
Track Carrier Roller - Remove and Install 717
Track Roller - Remove and Install 722
Travel Motor - Assemble 726
Travel Motor - Disassemble 750

This is the sample of the manual

Click on the download link for complete manual

Download Link

Travel Motor - Remove and Install 775
Upper Frame and Undercarriage Frame - Connect 779
Upper Frame and Undercarriage Frame - Separate 792
Window Wiper Motor - Remove and Install 805

Product: EXCAVATOR
Model: 336 EXCAVATOR DKS
Configuration: 336 Excavator DKS00001-UP (MACHINE) POWERED BY C9.3B Engine

Disassembly and Assembly
336, 336 GC and 340 Excavator Machine Systems
Media Number -M0087649-06 **Publication Date -01/05/2020** **Date Updated -22/05/2020**

i07356471

Accumulator - Remove and Install

SMCS - 4263-010; 4331-010; 5077-010; 7336-010

Reference: Special Instruction, "Visual Service Procedures - Colors and Symbols" , M0066576

Removal Procedure

WARNING

Personal injury can result from hydraulic oil pressure and hot oil.

Hydraulic oil pressure can remain in the hydraulic system after the engine has been stopped. Serious injury can be caused if this pressure is not released before any service is done on the hydraulic system.

Make sure all of the work tools have been lowered to the ground, and the oil is cool before removing any components or lines. Remove the oil filler cap only when the engine is stopped, and the filler cap is cool enough to touch with your bare hand.

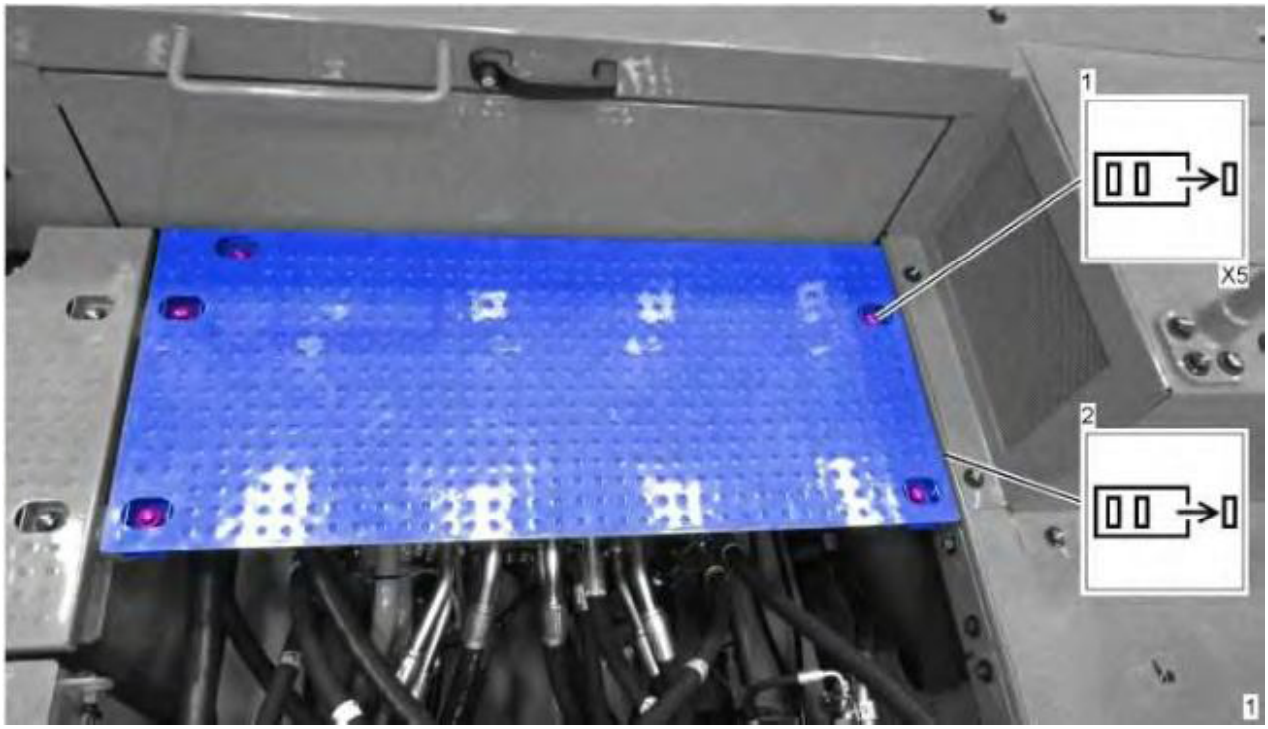

Illustration 1 g06292902

Illustration 2 g06292914

Inspect and replace the O-ring seal if needed.

Installation Procedure

1. Install the accumulator in the reverse order of removal.

Copyright 1993 - 2025 Caterpillar Inc.
All Rights Reserved.
Private Network For SIS Licensees.

Product: EXCAVATOR
Model: 336 EXCAVATOR DKS
Configuration: 336 Excavator DKS00001-UP (MACHINE) POWERED BY C9.3B Engine

Disassembly and Assembly
336, 336 GC and 340 Excavator Machine Systems
Media Number -M0087649-06 **Publication Date -01/05/2020** **Date Updated -22/05/2020**

i07395152

Antenna (GPS) - Remove and Install

SMCS - 733B-010

Removal Procedure

Reference: Special Instruction, "Visual Service Procedures - Colors and Symbols" M0066576.

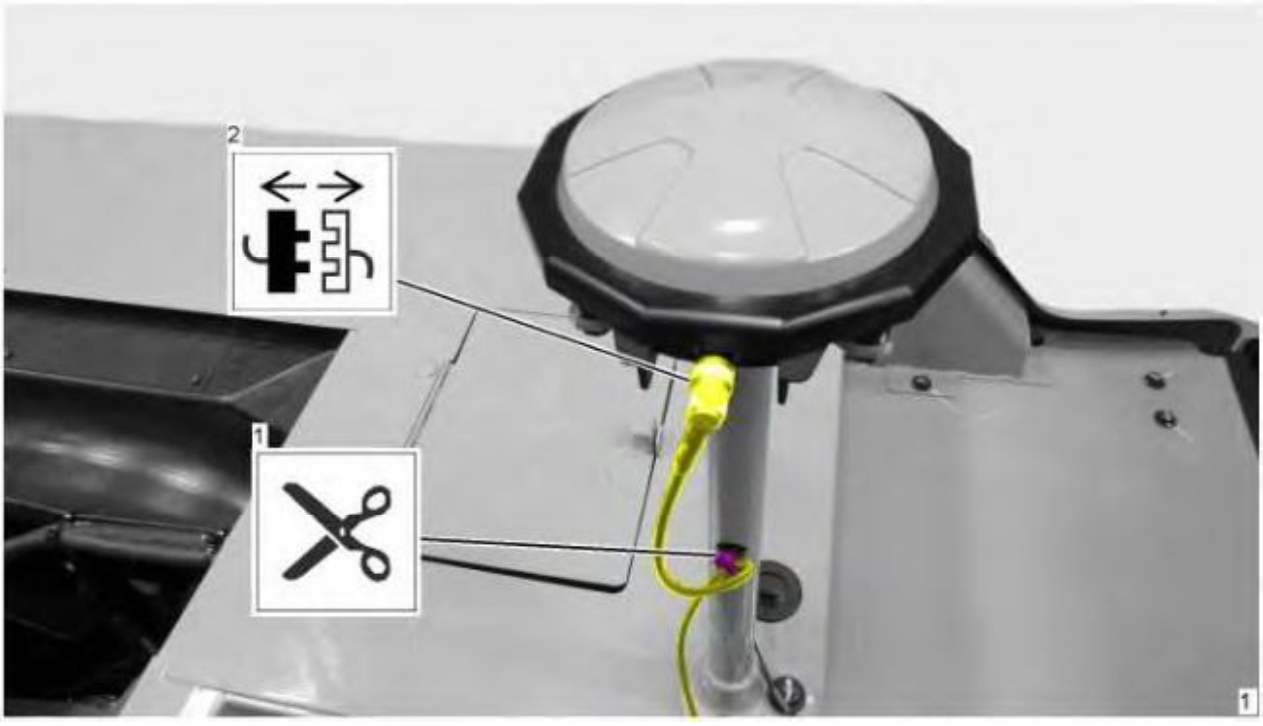

Illustration 1 g06307471

Repeat for the opposite side.

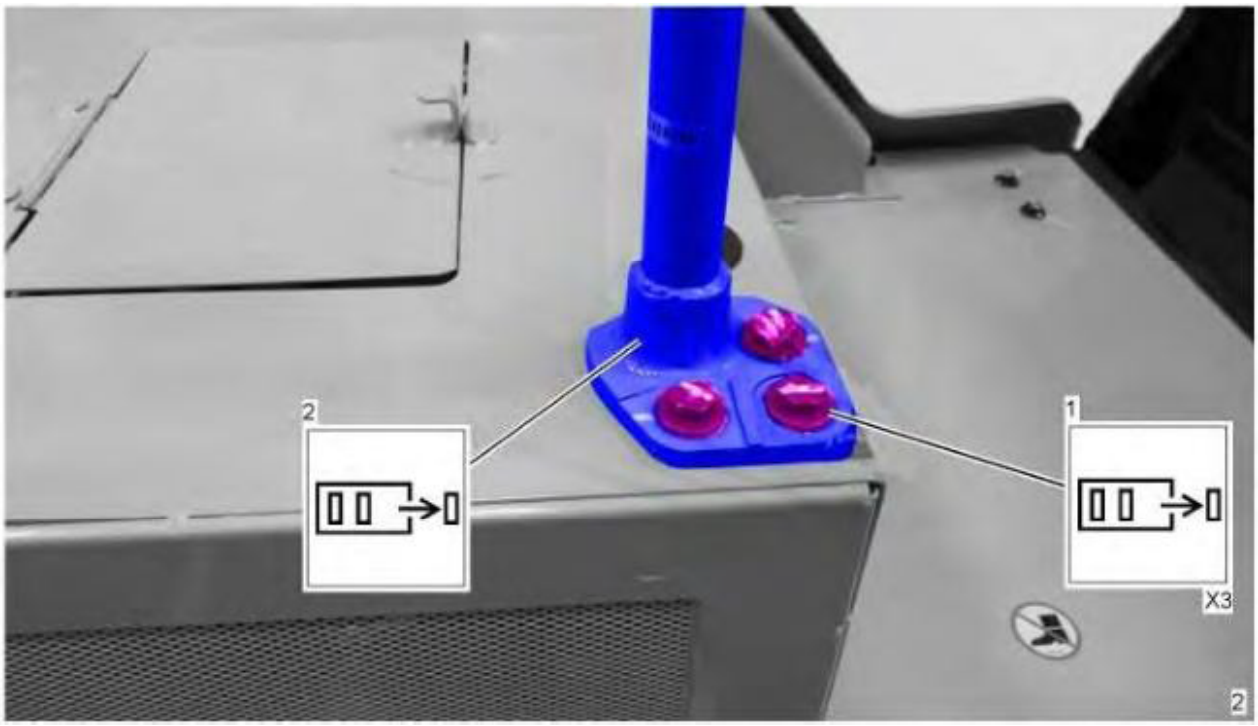

Illustration 2 g06307477

Repeat for the opposite side.

Installation Procedure

1. Install the GPS Antenna in the reverse order of removal.

Copyright 1993 - 2025 Caterpillar Inc.
All Rights Reserved.
Private Network For SIS Licensees.

Product: EXCAVATOR
Model: 336 EXCAVATOR DKS
Configuration: 336 Excavator DKS00001-UP (MACHINE) POWERED BY C9.3B Engine

Disassembly and Assembly
336, 336 GC and 340 Excavator Machine Systems
Media Number -M0087649-06 **Publication Date -01/05/2020** **Date Updated -22/05/2020**

i07373341

Boom - Remove and Install

SMCS - 6501-010

Removal Procedure

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	8S-7615	Pin As	1
	284-5122	Stand Assembly	1
	8S-7641	Tube	1
	8S-8048	Saddle	1
B	1U-9204	Lever Puller Hoist Gp	1
C	350-7768	Electric Hydraulic Pump Gp	1
	350-7769(1)	Electric Hydraulic Pump Gp	
	316-1489	Double Acting Cylinder	1
	9U-6809	Nut	1
	141-1785	Sleeve	1
	9U-6811	Puller Stud	1

(1) CE Compliant

Reference: Special Instruction, "Visual Service Procedures - Colors and Symbols" M0066576.

Start By:

a. Remove the stick.

WARNING

When you are using hydraulic cylinders and puller studs, always ensure that the rated capacity of the puller stud meets or exceeds the rated capacity of the hydraulic cylinder. If the puller stud does not meet or exceed the rated capacity of the hydraulic cylinder, a sudden failure of the puller stud could occur. The sudden failure of the puller stud could result in personal injury or death.

1. Lower the boom to the ground. Release the system hydraulic pressure.
2. Drain the hydraulic fluid. Refer to , M0082496, "Operation and Maintenance Manual" , Hydraulic System Oil - Change for the draining and refilling procedures.

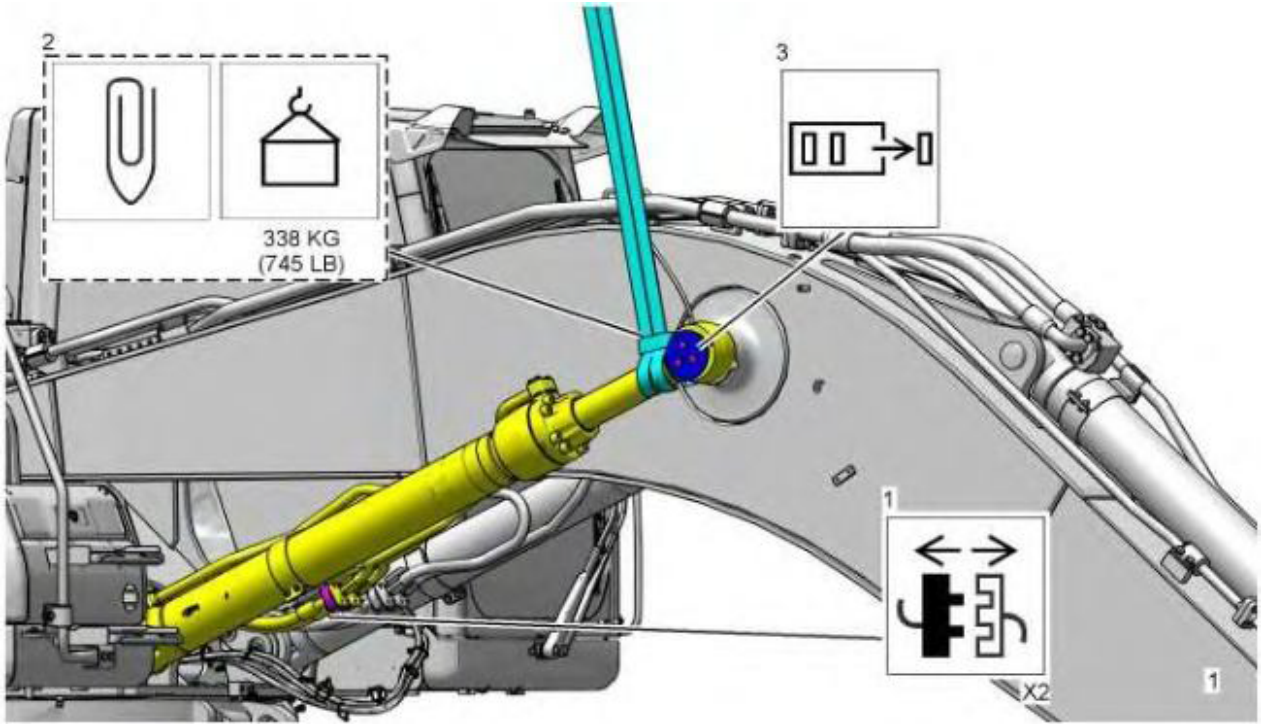

Illustration 1 g06298776

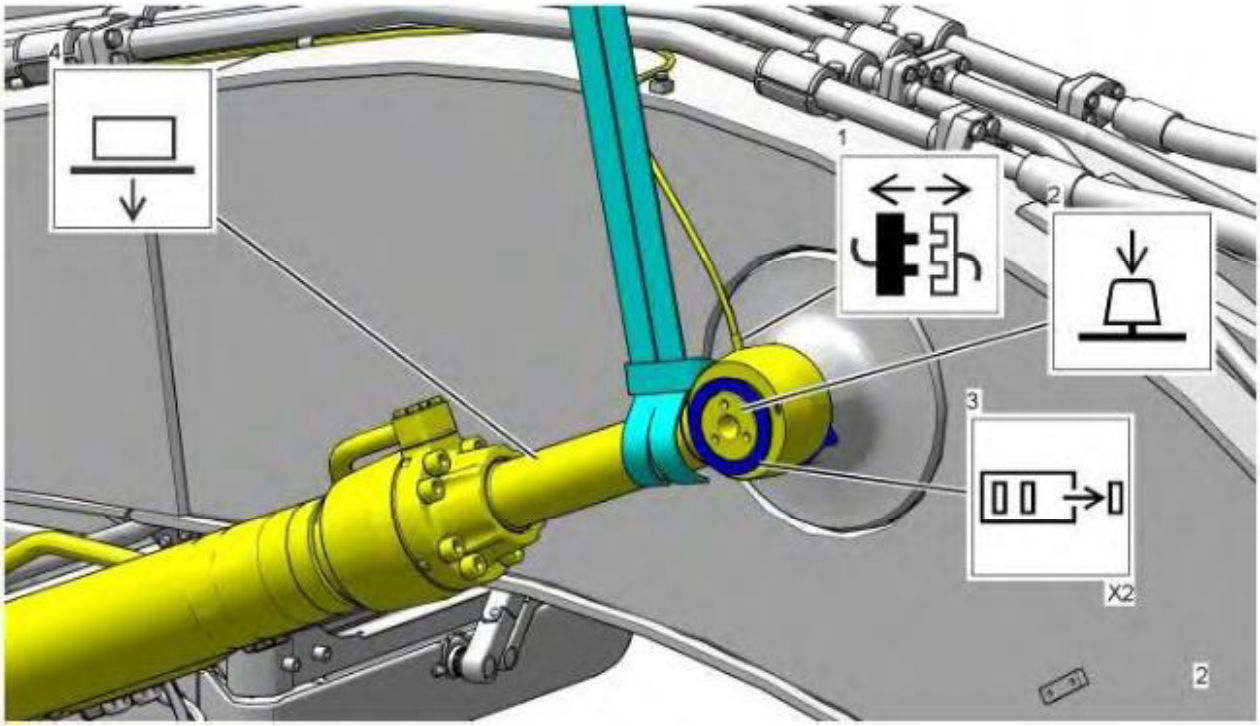

Illustration 2 g06298799

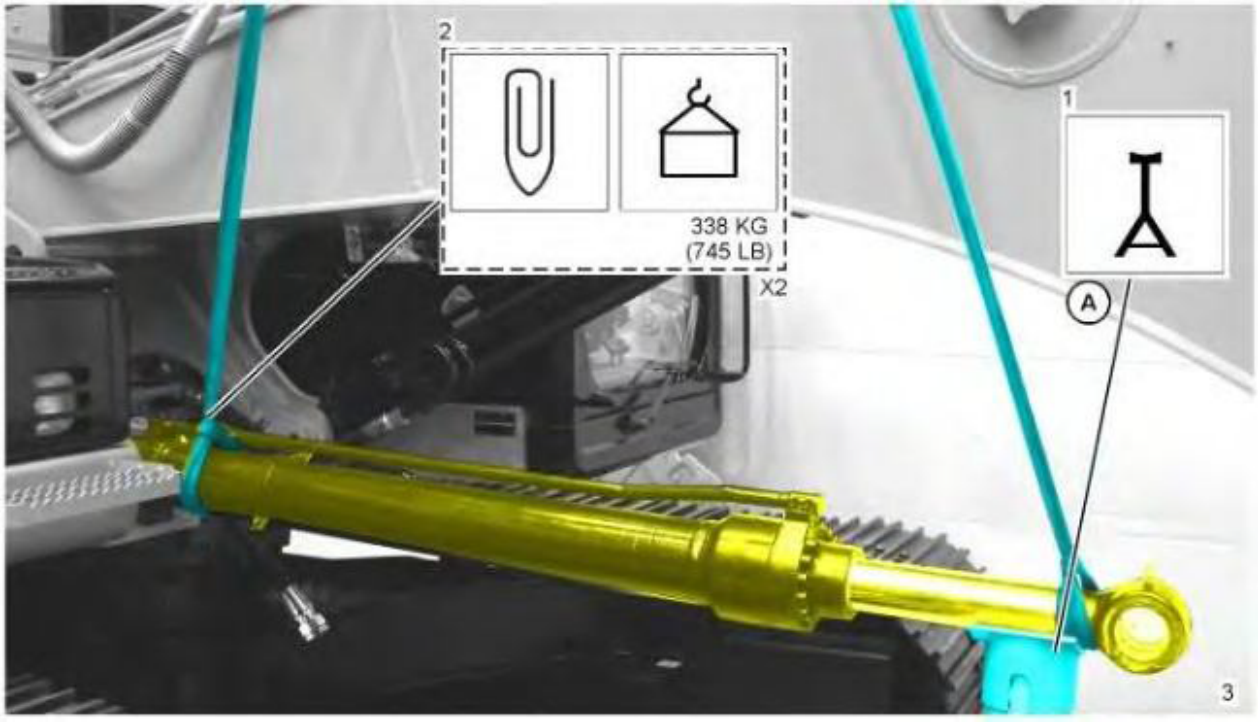

Illustration 3 g06298835

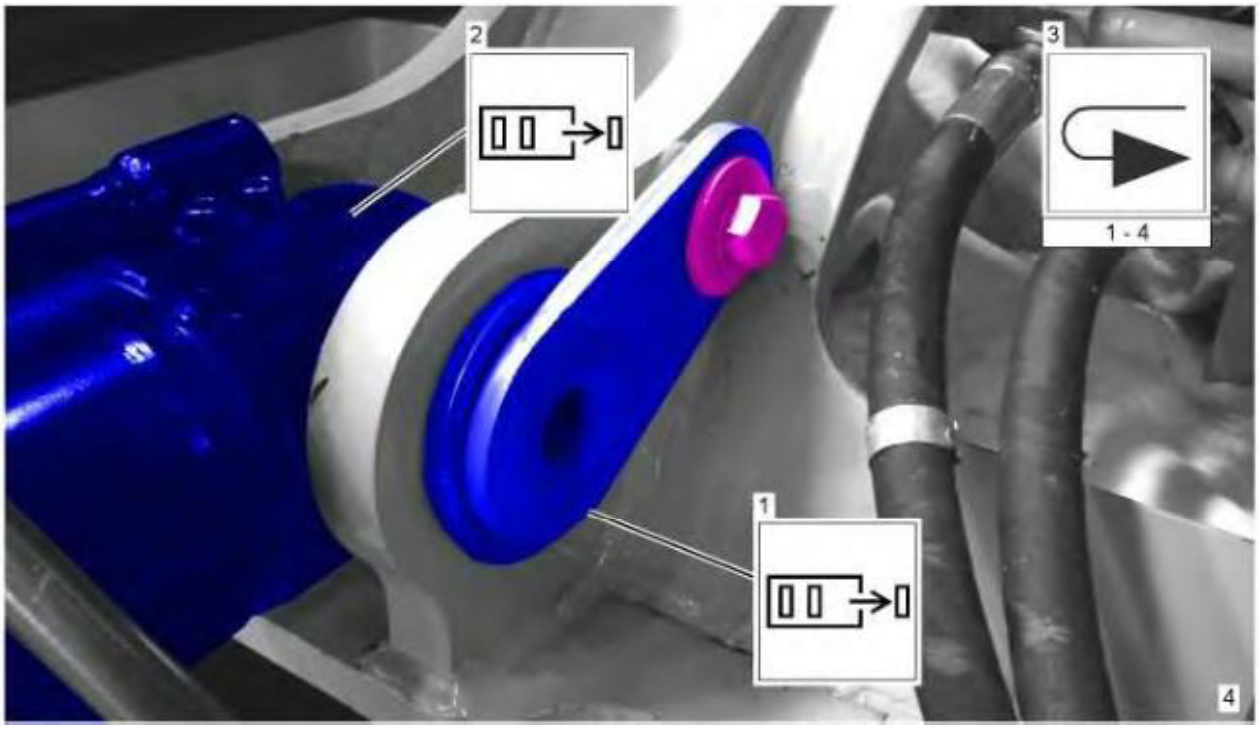

Illustration 4 g06298837

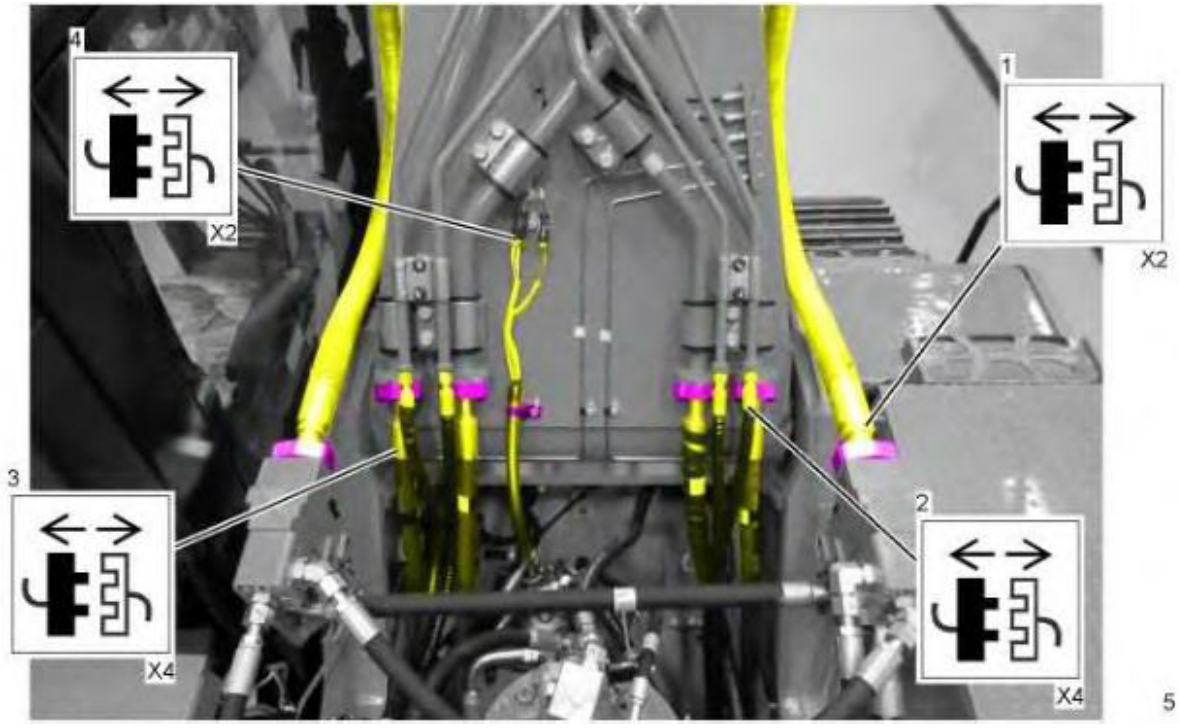

Illustration 5 g06298841

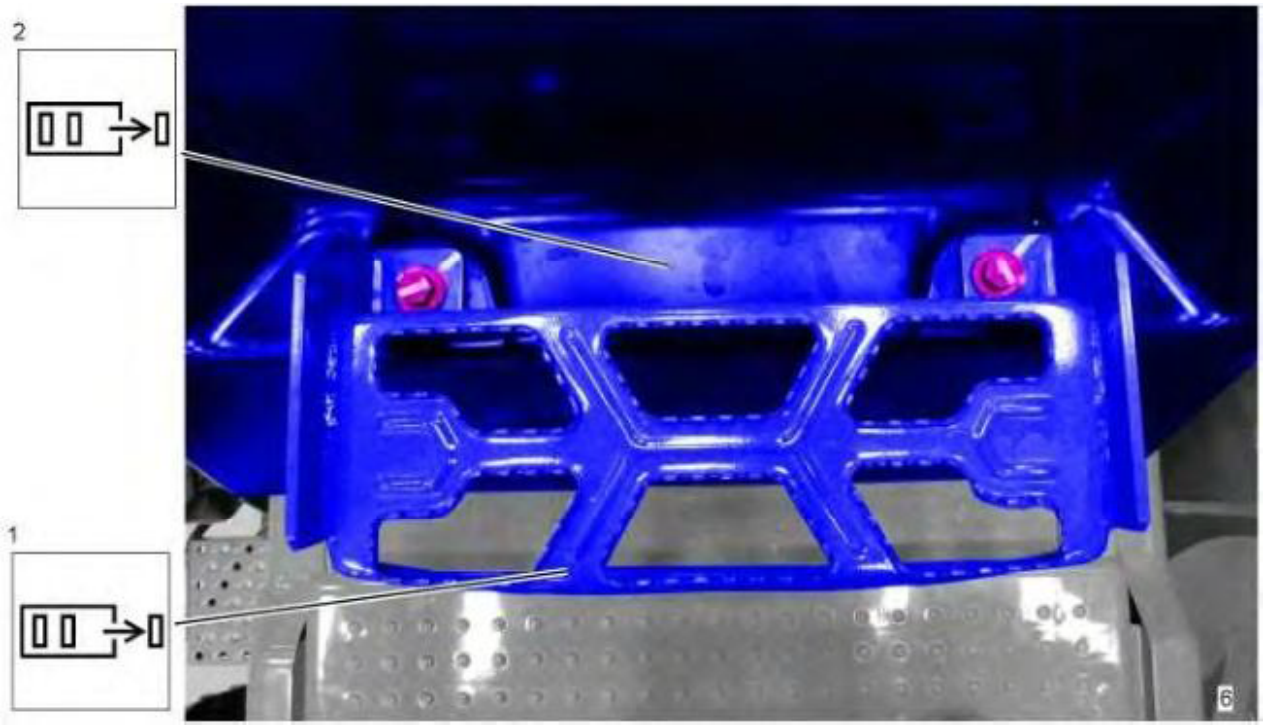

Illustration 6 g06298840

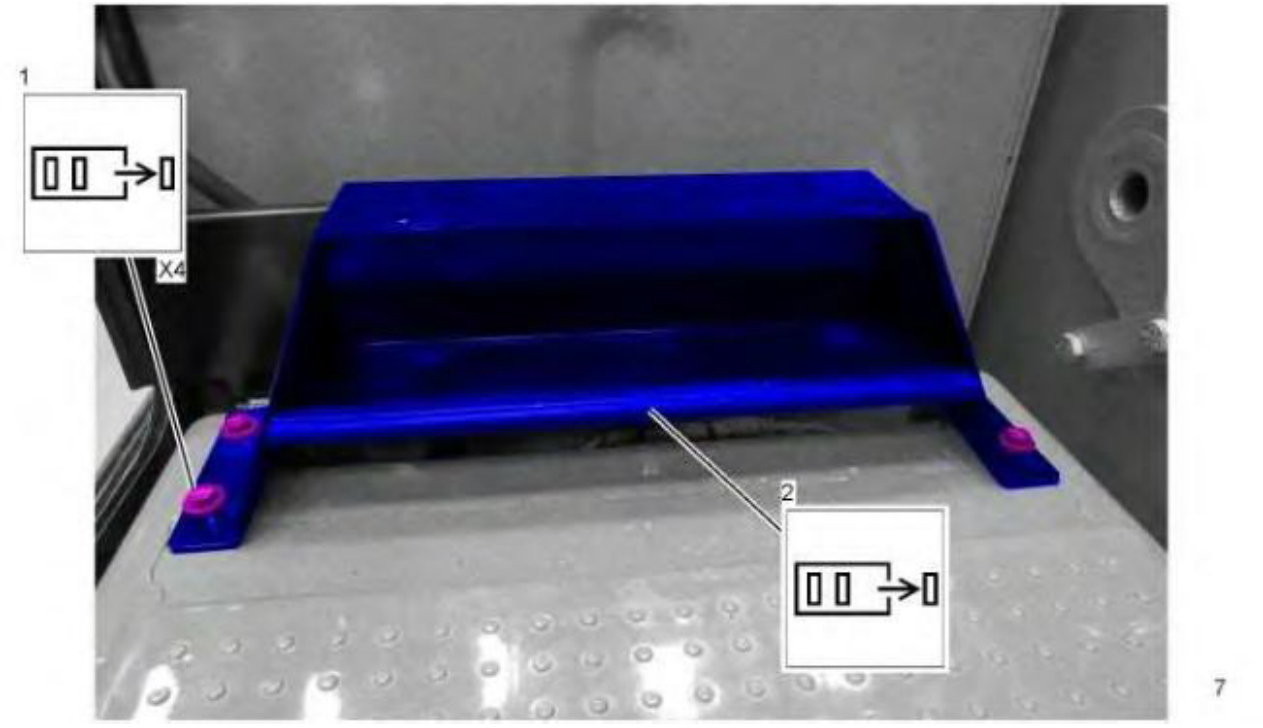

Illustration 7 g06299140

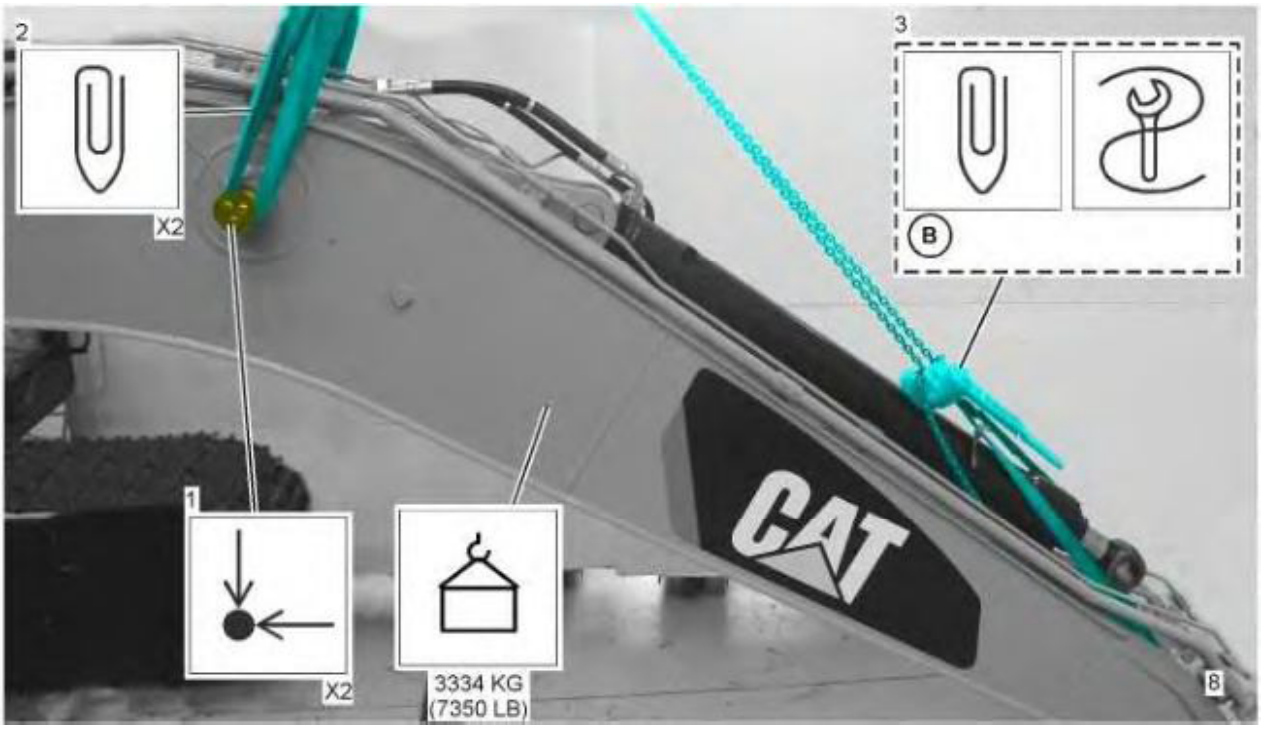

Illustration 8 g06299644

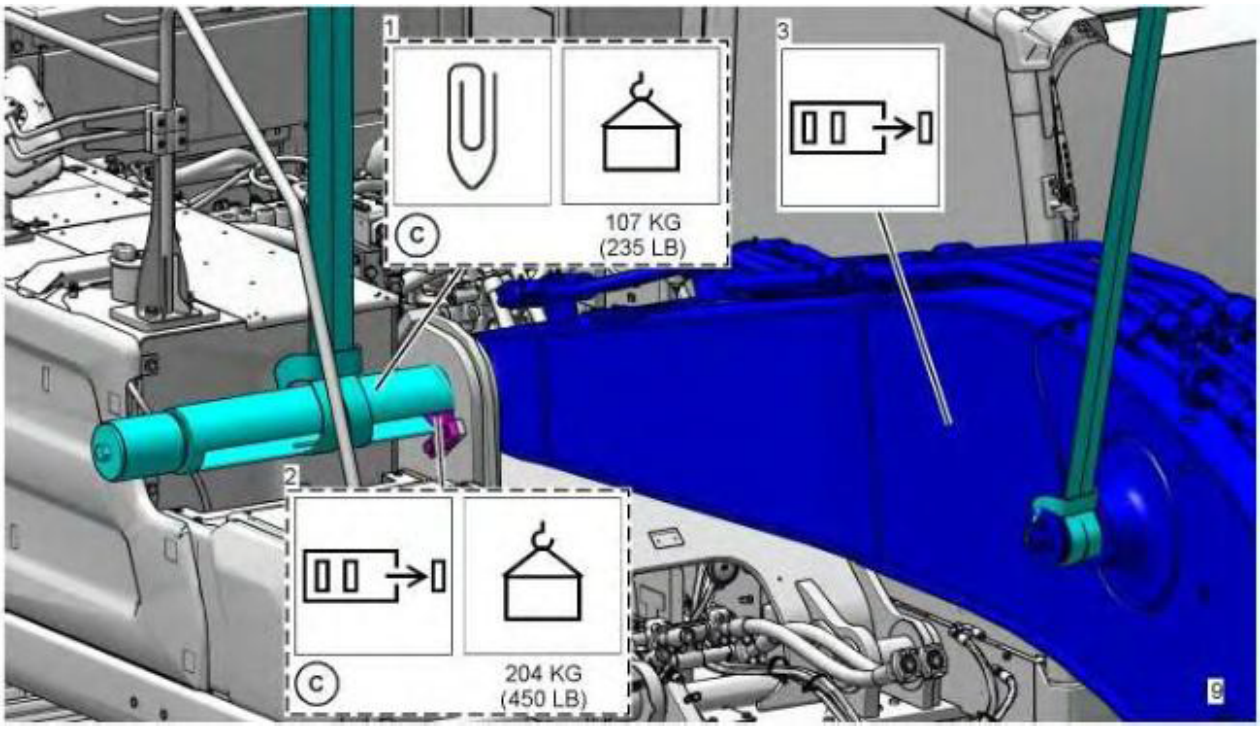

Illustration 9 g06300821

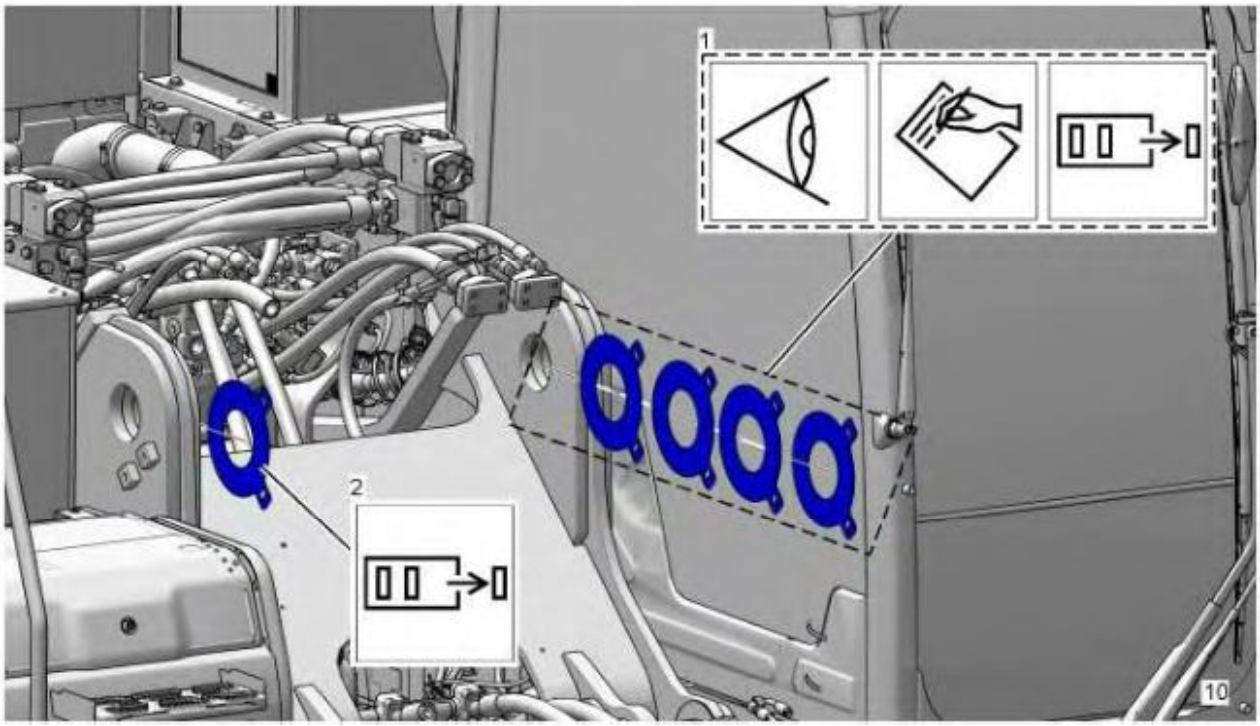

Illustration 10 g06301205

Installation Procedure

1. Install boom in the reverse order of removal.

Copyright 1993 - 2025 Caterpillar Inc.
All Rights Reserved.
Private Network For SIS Licensees.

Product: EXCAVATOR
Model: 336 EXCAVATOR DKS
Configuration: 336 Excavator DKS00001-UP (MACHINE) POWERED BY C9.3B Engine

Disassembly and Assembly
336, 336 GC and 340 Excavator Machine Systems
Media Number -M0087649-06 **Publication Date -01/05/2020** **Date Updated -22/05/2020**

i07030424

Boom Bearings and Seals - Remove and Install

SMCS - 6501-010-BD; 6501-010-SA

Removal Procedure

Reference: Special Instruction, "Visual Service Procedures - Colors and Symbols" , M0066576

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	350-7768	Electric Hydraulic Pump Gp	1
	350-7769	Electric Hydraulic Pump Gp	1
	4C-9634	Puller Stud	1
	7H-7539	Full Nut	1
	5P-8712	Bushing	1
	6V-0113	Double Acting Cylinder	1
	134-8469	Spacer	1
	9U-5337	Bearing Puller Adapter	1

Start By:

a. Remove the boom.

WARNING

When you are using hydraulic cylinders and puller studs, always ensure that the rated capacity of the puller stud meets or exceeds the rated capacity of the hydraulic cylinder. If the puller stud does not meet or

exceed the rated capacity of the hydraulic cylinder, a sudden failure of the puller stud could occur. The sudden failure of the puller stud could result in personal injury or death.

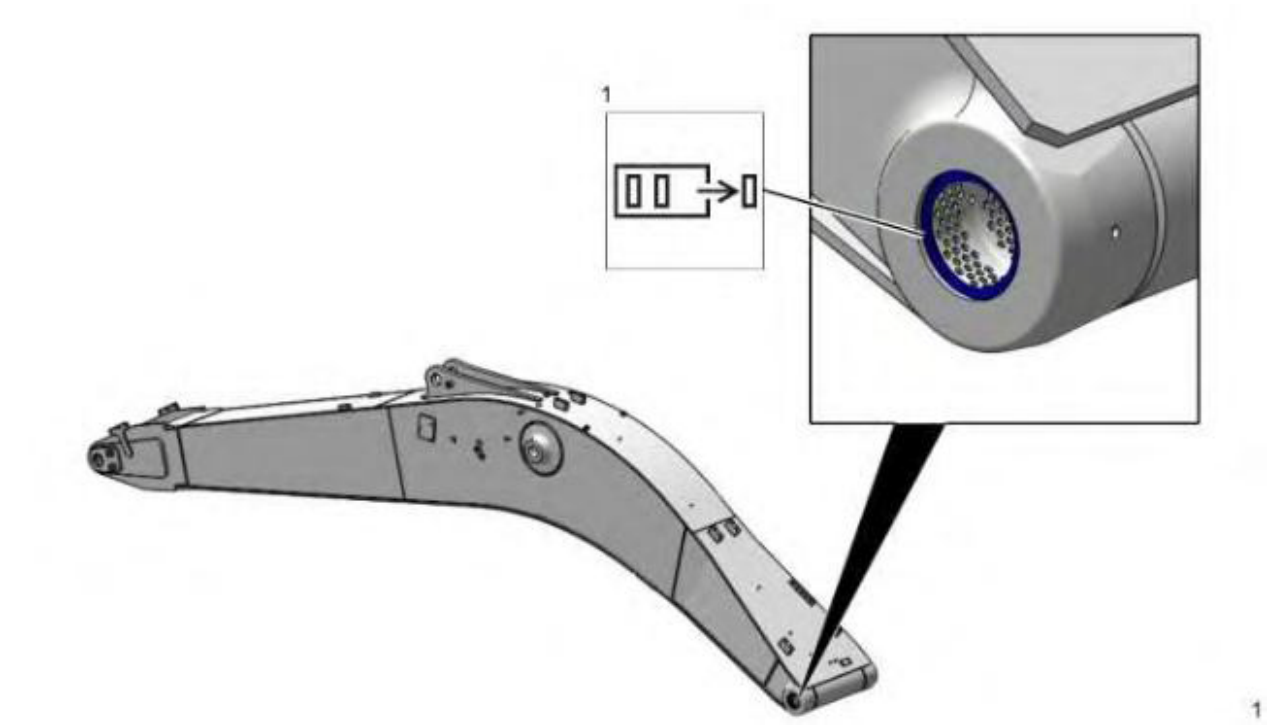

Illustration 1 g06201498

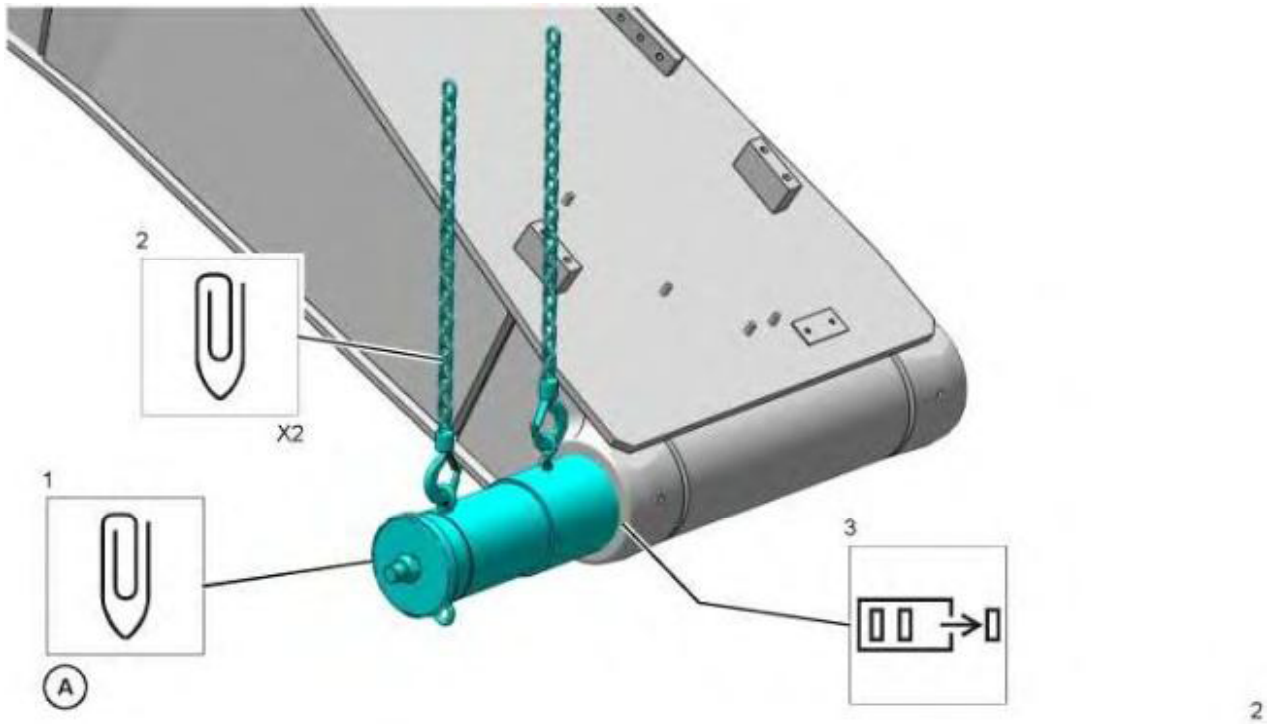

Illustration 2 g06201499

Repeat steps 1 and 2 for opposite side.

Installation Procedure

Table 2

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
B	1P-0520	Driver Gp	1
C	5P-0960	Molybdenum Grease	1

Note: Make sure that the bores for the sleeve bearings are free of paint and grease prior to the installation of the sleeve bearings.

Note: Make sure that the bearings are installed in the bore so that the identification numbers of the bearings are facing outward.

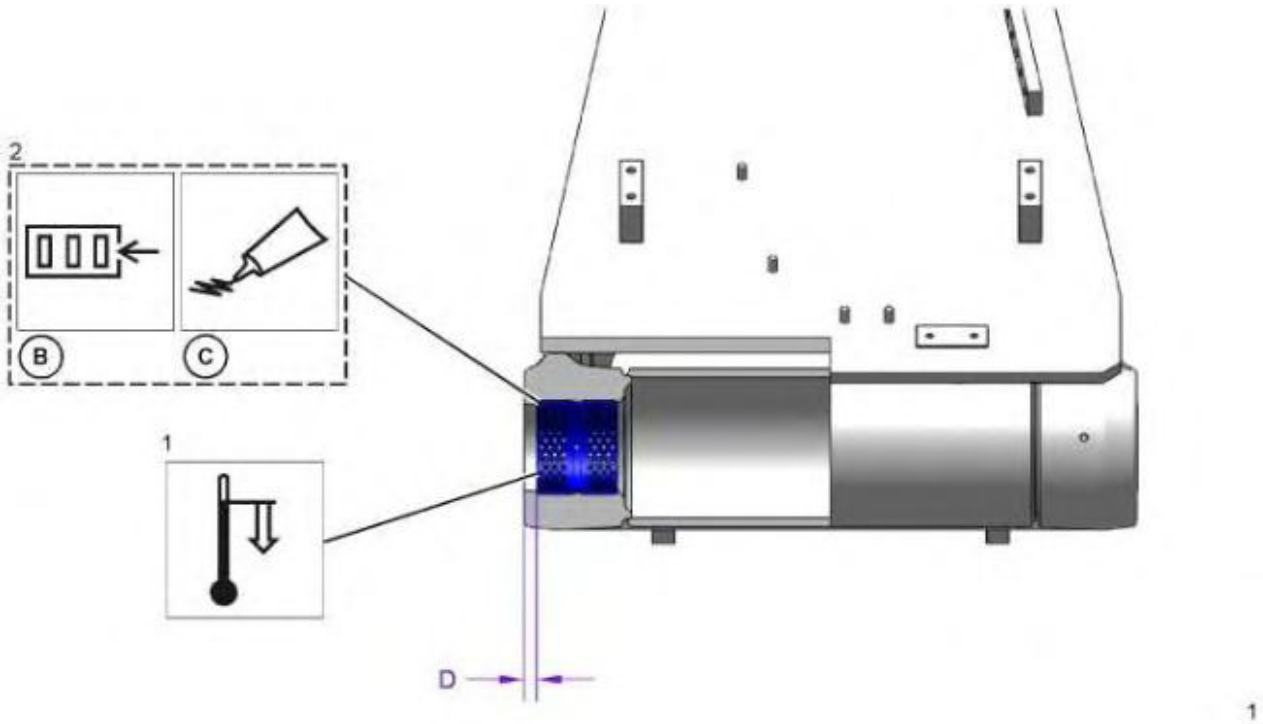

Illustration 3 g06201500

Use Tooling (B) to drive the sleeve bearing into the bearing bore to the depth of dimension (D) 9.5 ± 0.8 mm (0.37 ± 0.03 inch).

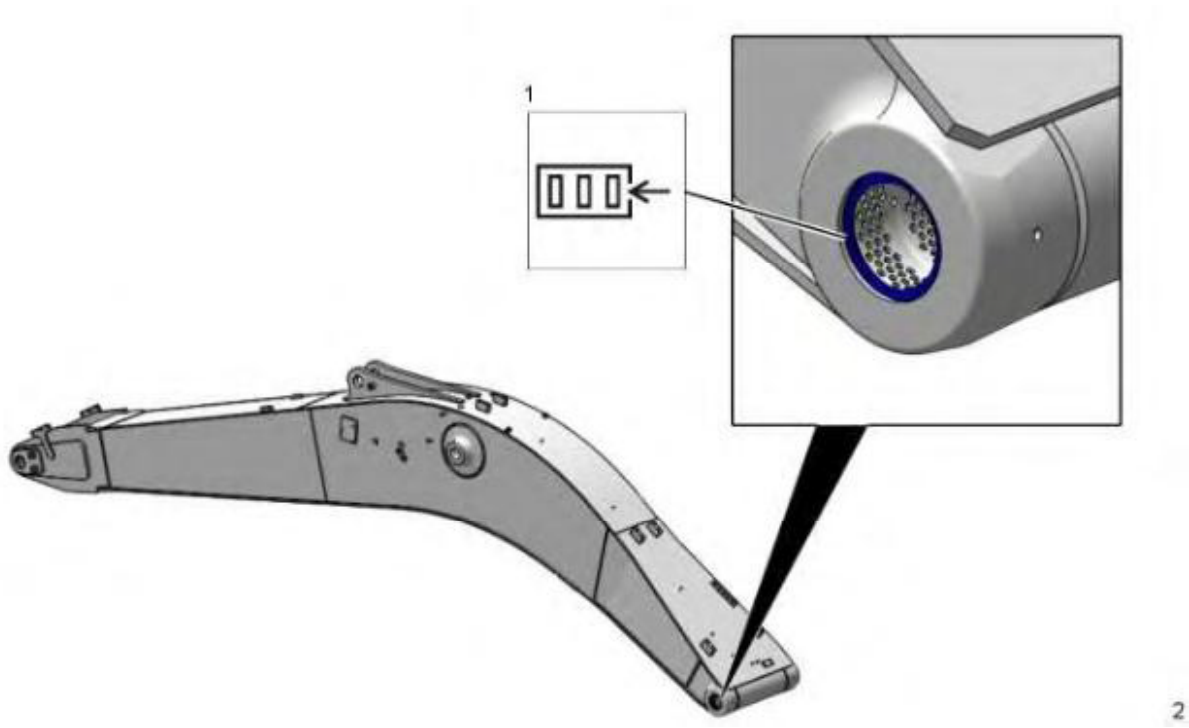

Illustration 4 g06201501

Repeat steps 1 and 2 for opposite side.

End By:

a. Install the boom.

Copyright 1993 - 2025 Caterpillar Inc.
All Rights Reserved.
Private Network For SIS Licensees.

Product: EXCAVATOR
Model: 336 EXCAVATOR DKS
Configuration: 336 Excavator DKS00001-UP (MACHINE) POWERED BY C9.3B Engine

Disassembly and Assembly
336, 336 GC and 340 Excavator Machine Systems
Media Number -M0087649-06 **Publication Date -01/05/2020** **Date Updated -22/05/2020**

i07311316

Boom Cylinder - Assemble

SMCS - 5456-016

Reference: Special Instruction, "Visual Service Procedures - Colors and Symbols" M0066576

Assemble Procedure

Table 1

Required Tooling			
Tool	**Part Number**	**Part Description**	**Qty**
A	152-4251	Hydraulic Repair Bench	1
B	-	Loctite 648 Retaining Compound	-

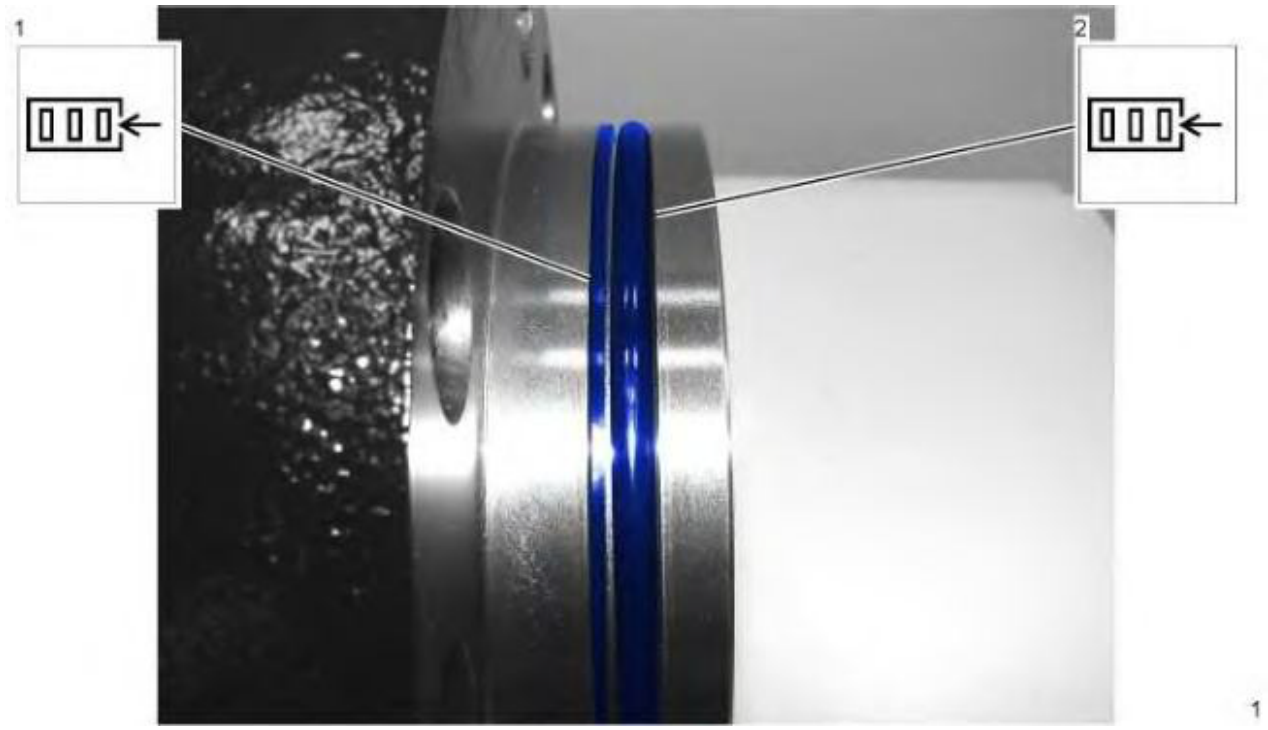

Illustration 1 g06279276

Illustration 2 g06279266

Lubricate the cup seal and the buffer seal with the fluid that is being sealed.

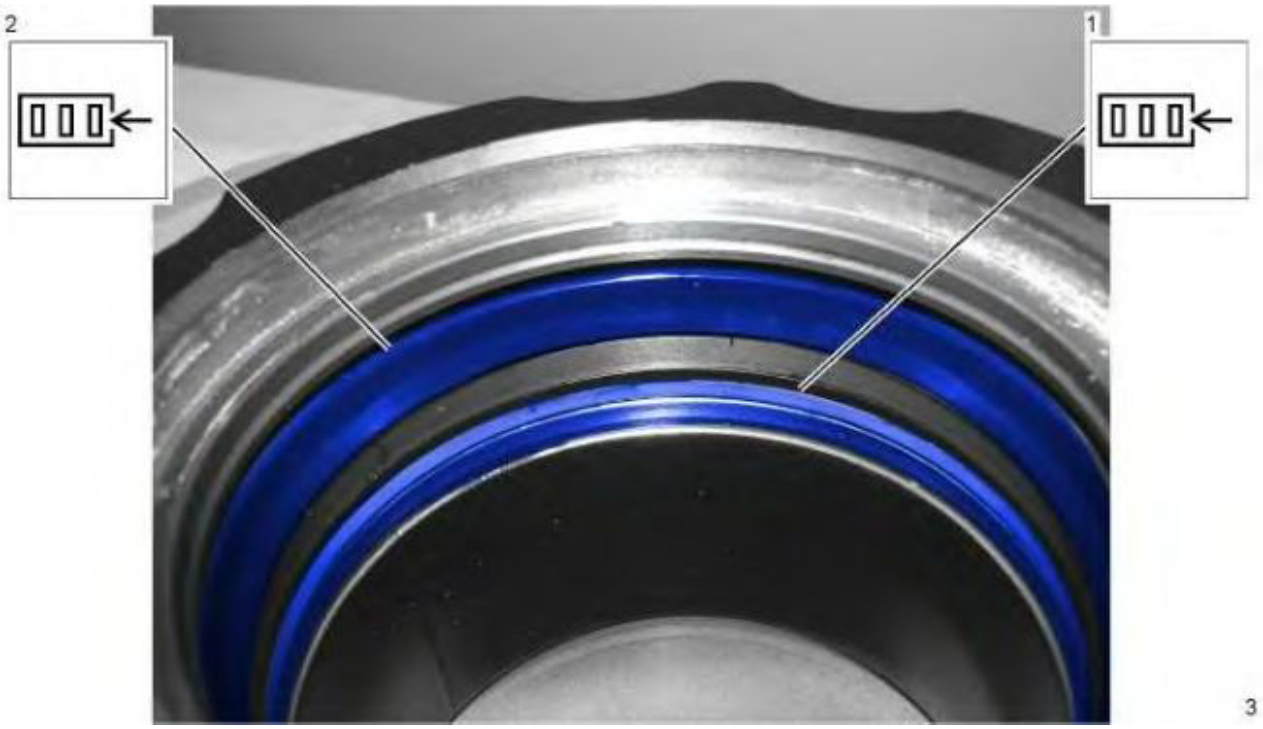

Illustration 3 g06279289

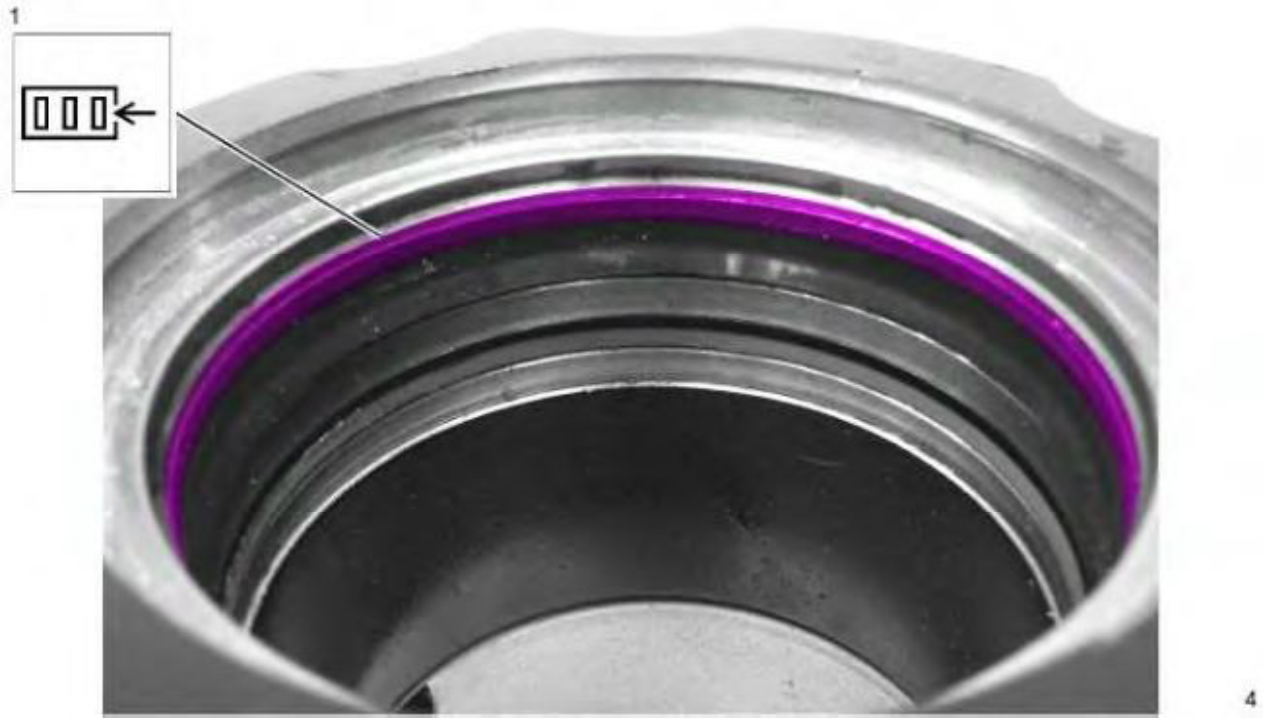

Illustration 4 g06279292

Illustration 5 g06279298

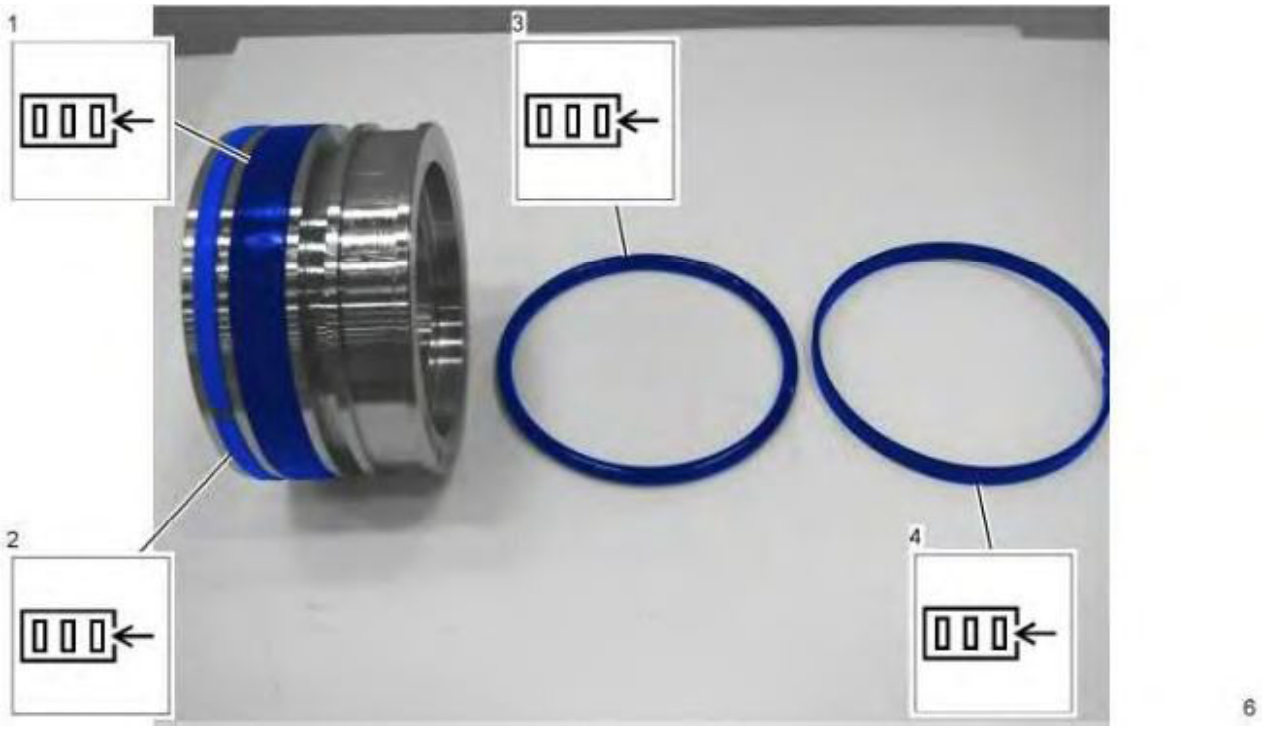

Illustration 6 g06279837

Lubricate ID and OD of the rings and the seal assembly with clean hydraulic oil.

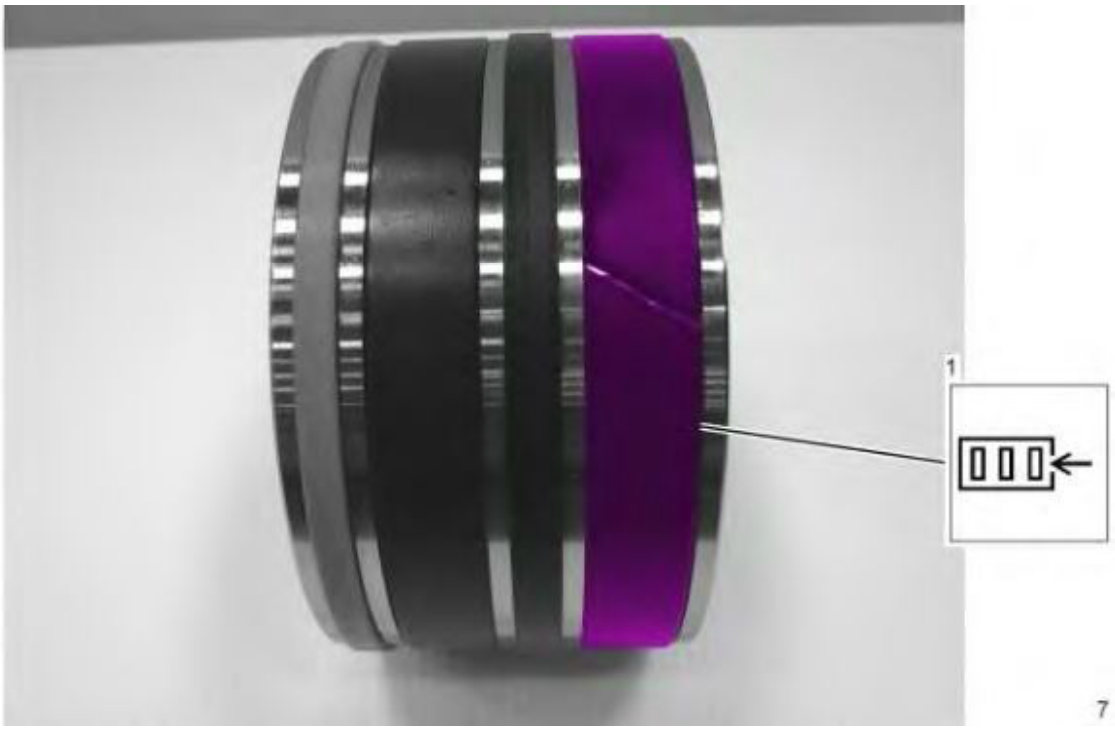

Illustration 7 g06279843

Lubricate ID and OD of the ring with clean hydraulic oil.

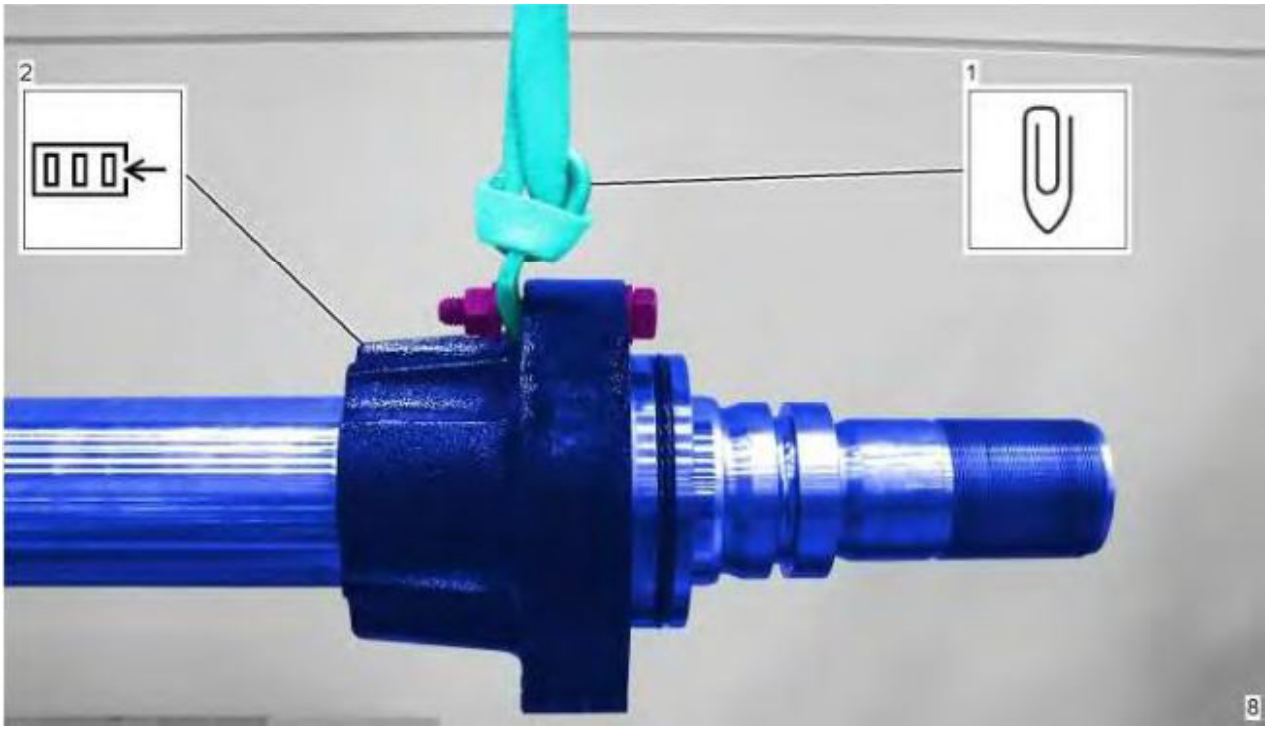

Illustration 8 g06279844

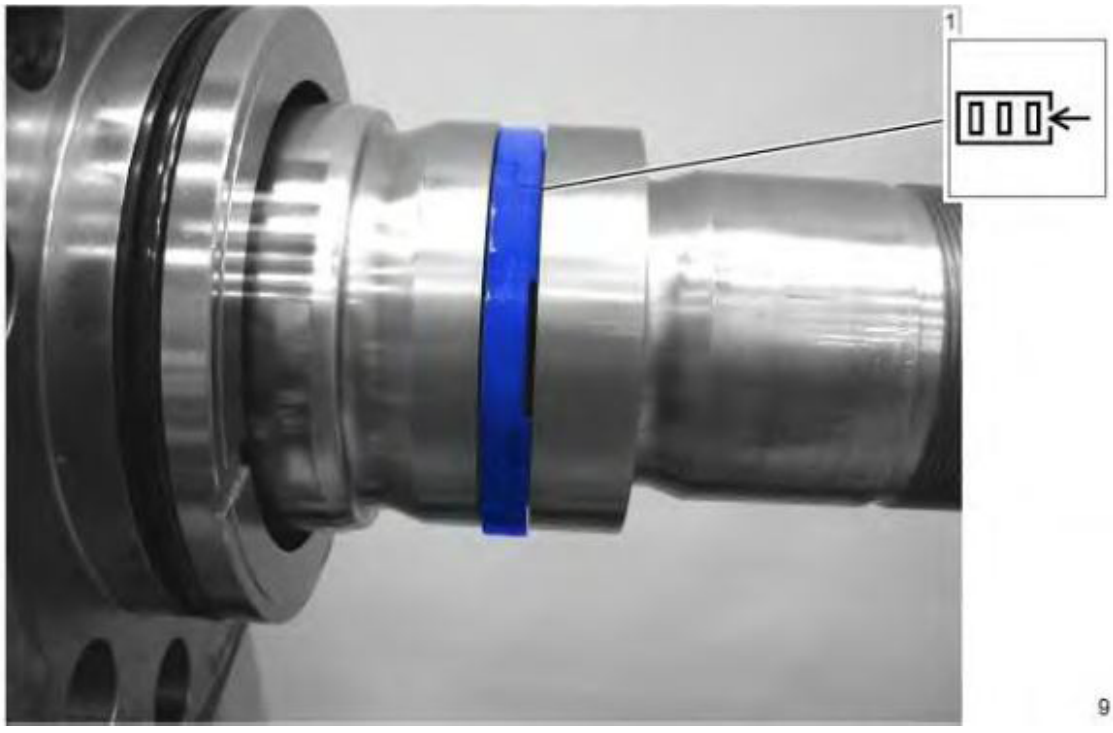

Illustration 9 g06279845

The seal must be installed in the same orientation that the seal was in the disassembly procedure. The slit of the seal must turn in direction of the piston.

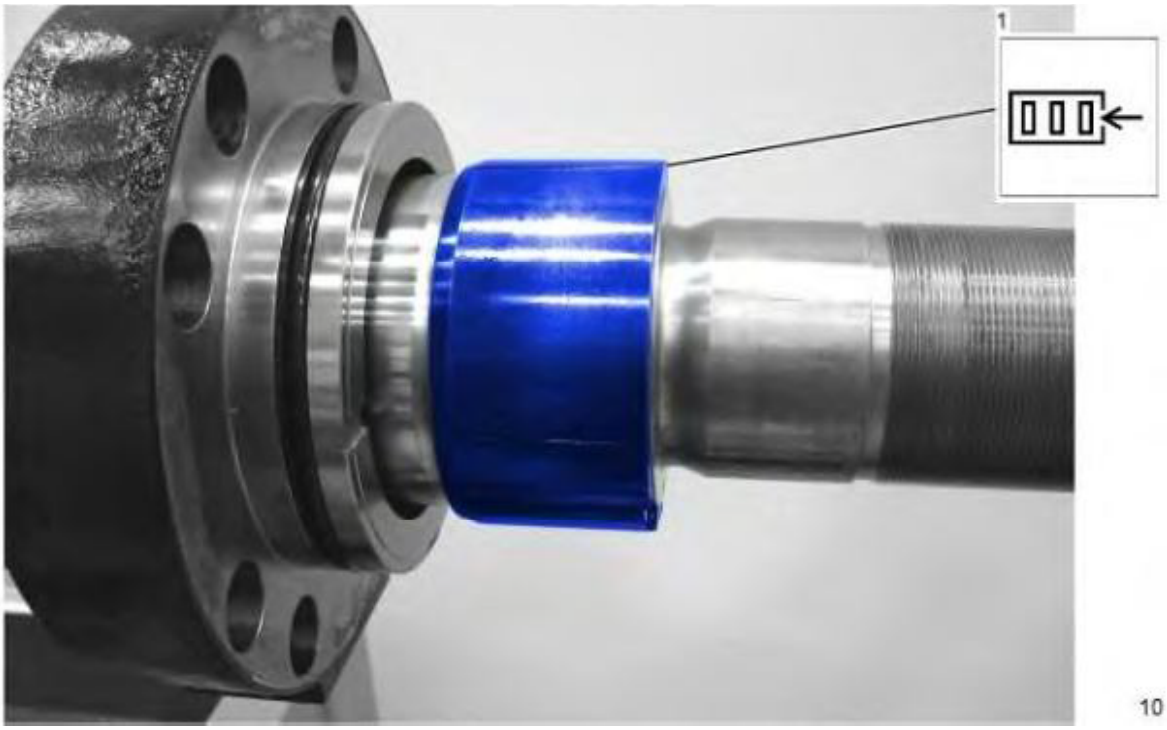

Illustration 10 g06279846

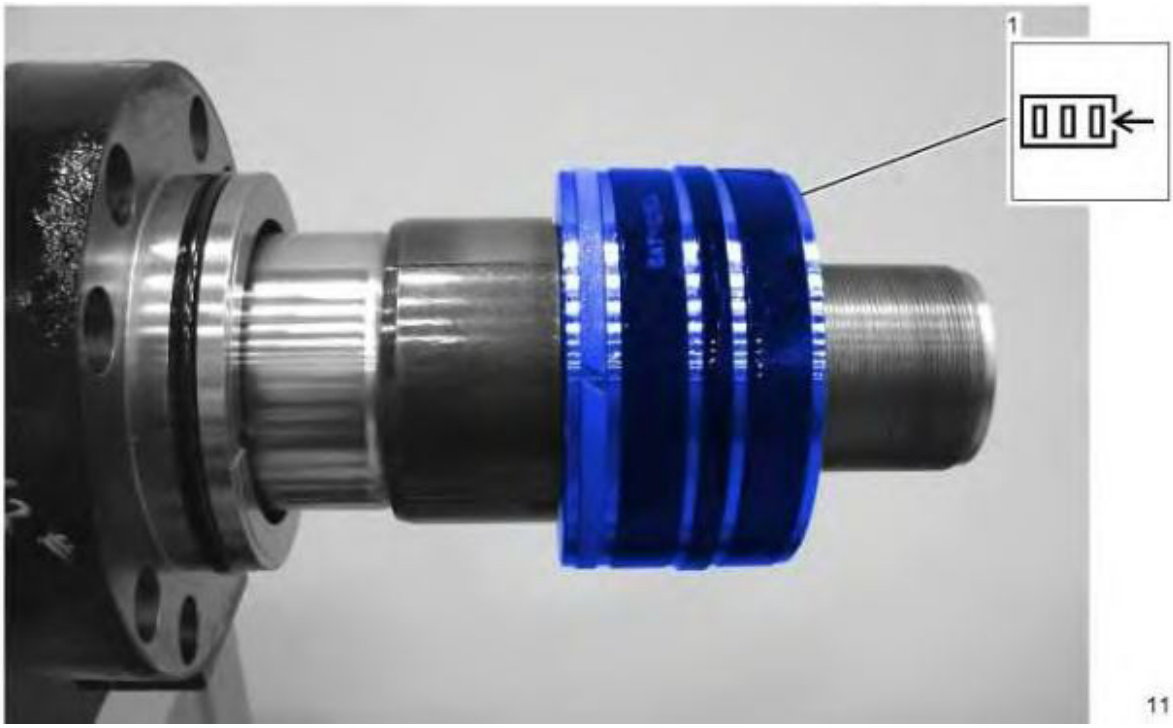

Illustration 11 g06279847

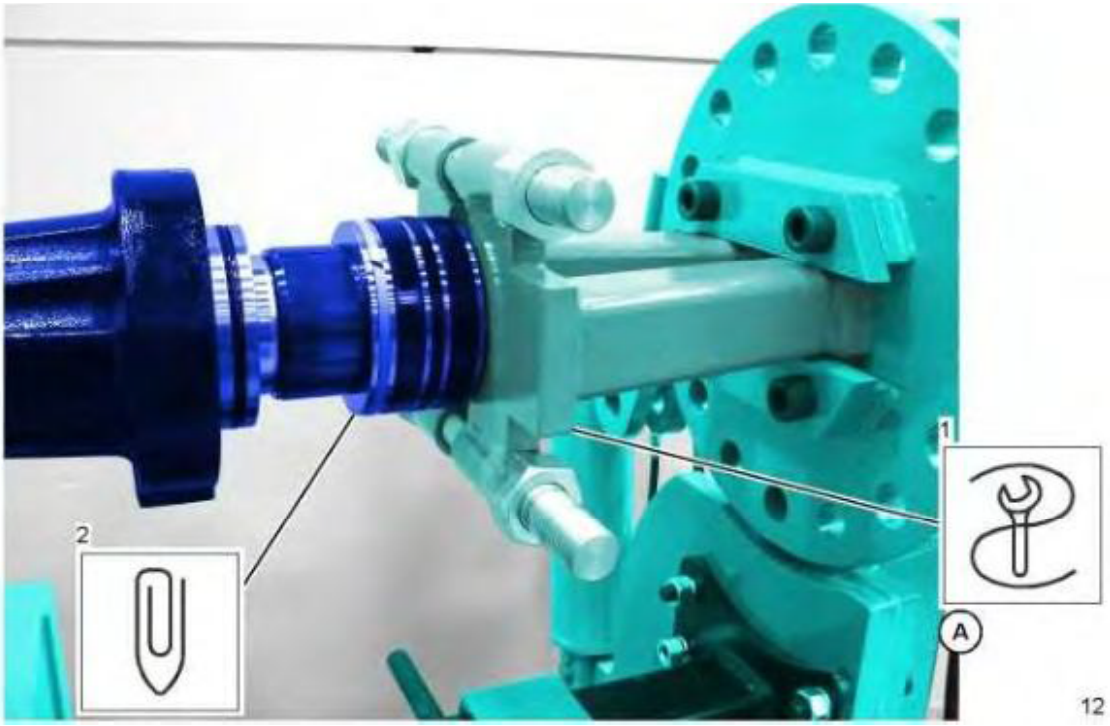

Illustration 12 g06279850

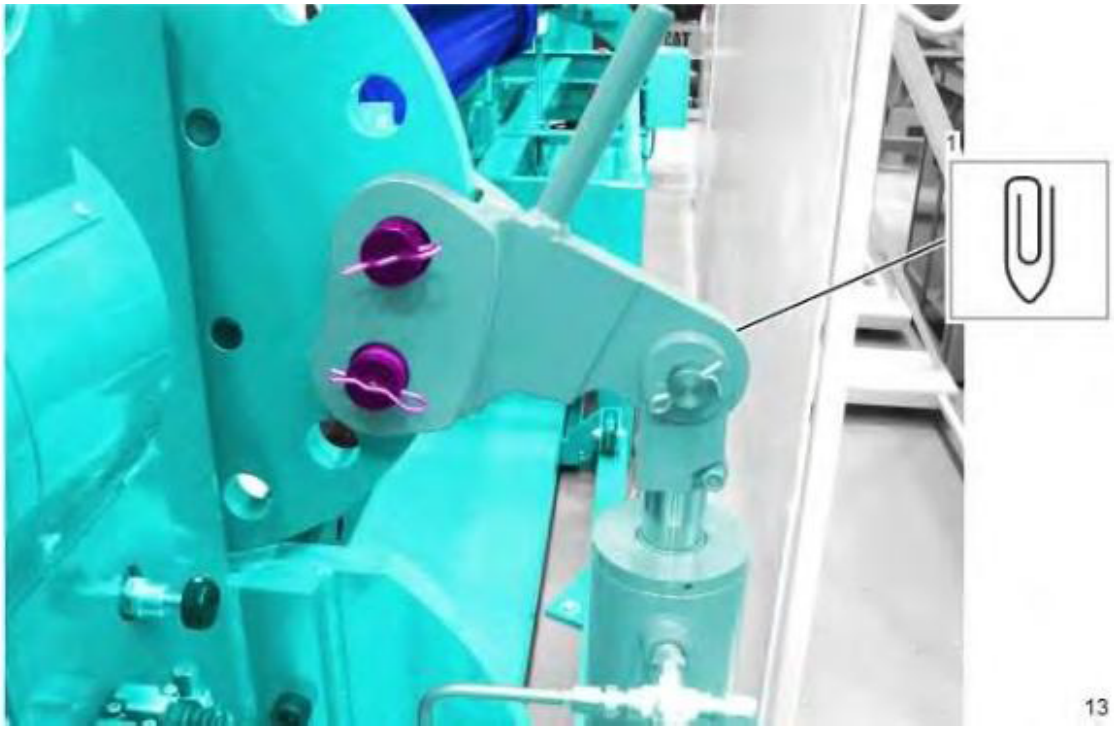

Illustration 13 g06279860

This is the sample of the manual

Click on the download link for complete manual

Download Link